SHIRNOVSKAYA-DERAZHENSKAYA, F. A.

Shirnovakaya-Derazhenskaya, F. A. - "The question of the horizontal septa in the
parietal musculature of the bony fishes," Trudy
Alma-At. vet.-zootekhn. in-ta , Vol. V, 1948,
p. 346-48

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

ACCESSION NR: AT4015862   S/2573/63/000/009/0226/0233

AUTHOR: Cherny*shev, V. Ye.; Shiro, G. E.

TITLE: An automatic telemetering system with FM transducers

SOURCE: AN SSSR. Institut elektromekhaniki. Sbornik rabot po voprosam elektro-mekhaniki, no. 9, 1963. Avtomatizatsiya, telemekhanizatsiya i priborostroyeniye (Automation, telemechanization and instrument manufacture), 226-233

TOPIC TAGS: transducer, telemeter, system telemetry, data transmission, data monitor-ing, monitoring sensor, transmission system, meteorology, commutator, sensor, trans-ducer sensitivity, pulse counter, generator

ABSTRACT: A telemetering system which is required to monitor and transmit data from many sources is most economical when many monitoring sensors are used in connection with one measuring and transmitting system. A block diagram of such a system is shown in Figure 1 of the Enclosure. The majority of sensors used in meterology have trans-ducers whose output electrical signal is varied either by voltage or impedance. These quantities are difficult to convert to digital form and usually require a physically moving commutator. When the sensor output is varied by frequency, proportional to the input variable, the reliability of the system increases since no moving contacts are required.

Card   1/5

ACCESSION NR: AT4015862

The FM transducers available are mostly nonlinear for the range

$$\frac{\Delta f_p}{f_{max}} \leqslant 0.2 f_{max} \qquad (1)$$

where Δf_p is the operating frequency deviation of the sensor. Most non-linearities are of the form $f = k \sqrt{x}$. A compensation for the non-linear characteristic of the transducer element consists of multiplying the transducer output by a piecewise-linear approximation of the inverse of this non-linearity, so as to make the output of the measuring system of Figure 1 of the Enclosure directly proportional to the input variable. The block diagram of the measuring system is shown in Figure 2 of the Enclosure. The measurement is per-formed in two steps: determination of the number of the linearization segment and actual measurement with correction for non-linearity. For any element K, the timing system supplies a pulse which opens Gates 1 and 2. At the same time the inputs of two pulse counters are supplied with pulses at frequencies f_{rg} (reference generator) and f_k. When counter 1 is filled, it generates a pulse which closes both gates and signals the timing circuit that the first measuring stage is completed. The timing circuit forms a series of pulses required to read out from counter 2 a number which corresponds to the number of

Card   2/5

ACCESSION NR: AT4015862

the linearization segment. This number is used to select proper linearization constants (slope and intercept) from the block of constants in accordance with the number of the sensor element and the number of the linearization sector as recorded in both counters. As a result the counter 2 output gives a digital number N_k which corresponds to the magnitude of the measured variable in physical units. The block of constants is the most complex part of the system. A simple realization is given using ferrite-diode elements and the current distribution principle. The signal-to-noise ratio of the block is from 50 to 200. The system is capable of handling up to 40 sensors with a measurement accuracy of 0.2%. Orig. art. has: 7 formulas and 3 figures.

ASSOCIATION: Institut elektromekhaniki AN SSSR (Institute of Electromechanics AN SSSR)

SUBMITTED: 00   DATE ACQ: 20Dec63   ENCL: 02

SUB CODE: EC   NO REF SOV: 004   · OTHER: 000
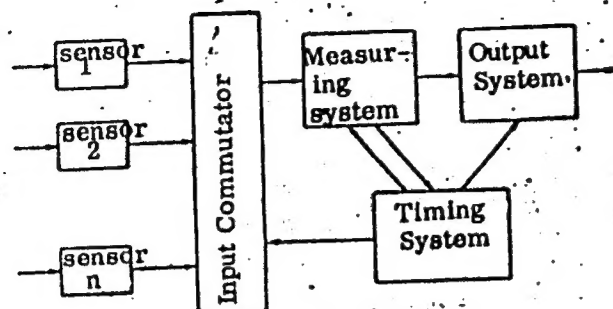
Card   3/5

CCESSION NR: AT4015862

Fig. 1 - Block diagram of the Telemetering System.

Card   4/5
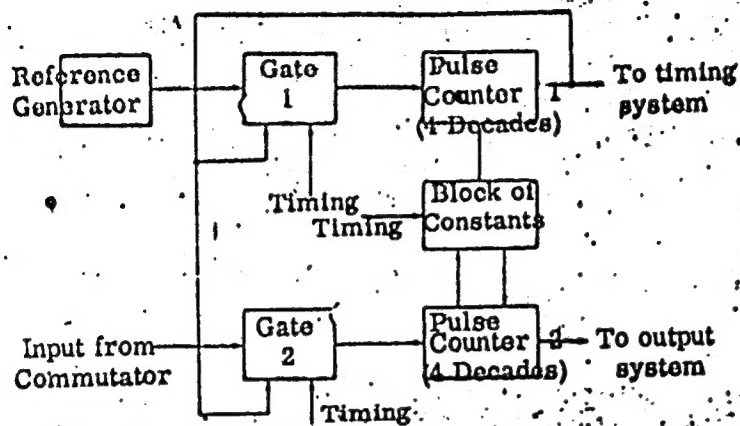
Fig. 2 - Block diagram of Measuring System.

AUTHOR: Vasichev, B. N.; Der-Shvarts, G. V.; Fetisov, D. V.; Shirobok, V. K.

TITLE: Microanalyzer for thin specimens

SOURCE: Pribor, tekhnika eksperimenta, no. 1, 1965, 189-191

TOPIC TAGS: microanalyzer, structural analysis

ABSTRACT: An x-ray microanalyzer (MA) intended for structural analyses of microareas of thin (2000 Å) foils is described. The MA is built into a desk-type BS-242 electron microscope ("Tesla," Czechoslovakia) whose resolution is up to 30 Å and enlargement, 100—30,000; the picture can be observed on a 60×60-mm screen. The MA sensitivity can be evaluated on the basis of this data: with a 170-Å sprayed nickel film, a 1.5-μ probe diameter, 2×10^{-7} amp probe current, and a 4 -kv accelerating voltage, the intensity of the K-line of nickel was ... with quartz crystal with ... For a thick pure-Ni specimen, other things being equal, the counting rate was 780 ppm. Orig. art. has: 3 figures.

Card 1/2

L 45456-65
ACCESSION NR: AP5007055   0

ASSOCIATION: none

SUBMITTED: 05Jun64   ENCL: 00   SUB CODE: IE, OP

NO REF SOV: 006   OTHER: 002

Card 2/2

AUTHORS: Isupov, V. A.; Strelets, P. L.; Serova, I. A.; Yatsenko, N. D.;
Shirobokikh, T. M.

TITLE: Peculiarities of ferroelectric phase transitions in solid solutions of the
system $Na_{0.5}Bi_{0.5}TiO_3$ -- $PbTiO_3$

SOURCE: Fizika tverdogo tela, v. 6, no. 3, 1964, 790-795

TOPIC TAGS: ferroelectric, phase transition, solid solution, Vegard law, dielectric polarization, crystal lattice structure

ABSTRACT: The authors' study stems from lack of information on the effect of
diffusion of phase transitions on ferroelectric properties and from disagreement
concerning the causes of the relaxation nature of dielectric polarization
observed in ferroelectrics with diffused phase transitions. While investigating
the dielectric properties and crystal structure in the system $Na_{0.5}Bi_{0.5}TiO_3$—
$PbTiO_3$, the authors discovered a number of relationships. Their studies confirm
the view that the diffusion of ferroelectric phase transitions declines with

Card 1/2

ACCESSION NR: AP4019840

increase in spontaneous polarization and spontaneous deformation of the solid solutions. At room temperature, the boundary between rhombohedral and tetragonal phases lies in the region of 0-10% $PbTiO_3$. The dependence of unit-cell volume on

component concentrations deviates considerably from the Vegard law. The Curie point of the examined solid solutions depends in nonlinear fashion on the concentration of $PbTiO_3$, reaching a minimum at a content of about 10 mol/% . Orig. art.

has: 4 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 09Sep63   DATE ACQ: 31Mar64   ENCL: 00

SUB CODE: SS   NO REF SOV: 013   OTHER: 002

Card: 2/2

SHIROBOKOV, M.

Operation of the air-conditioning system at the "Sovetskii Soiuz,"
a disel-elctric ship. Khol. tekh. 37 no. 6:51-52 N-D '60.

(MIRA 13:12)

(Ships--Air conditioning)

SHIROBOKOV, M., mekhanik

Operating the air-conditioning system and refrigerator equipment
on diesel-electric motorships. Rech. transp. 19 no.12:48-49 D '60.
(MIRA 13:12)

1. Dizel'Elektrokhod "Sovetskiy Soyuz."
                (Ships--Air conditioning)
                (Refrigeration on ships)

OL'FERT, A.I.; PAPUSHIN, L.L.; SHIROBOKOV, M.F.; KLENIN, V.G.

Improving the performance and increasing the output of slurry
jigging machines. Koks i khim. no.5:22 '60.
(MIRA 13:7)

1. Opornaya issledovatel'skaya ugleobogatitel'naya laborato-
riya Stalinskogo sovnarkhoza (for Ol'fert, Papushin, Shirobokov).
2. Yasinovskiy koksokhimicheskiy zavod (for Klenin).
(Yasinovka--Coal preparation--Equipment and supplies)

SHIROBOKOV, M. Ya.

Mbr., Physico-Technical Inst. Gorkiy, State Univ., -1939-49-. "On the Mechanism of Cobalt Magnetization," Dok. AN, 24, No. 5, 1939; "On the Mechanism of Magnetization of Ferromagnetics," Zhur. Eksper. i Teoret. Fiz., 15, Nos. 1-2, 1945; "Scattering of Light by a Spin 2 Particle," ibid. 19, No. 5, 1949.

On the Mechanism of Magnetization of Ferromagnetics.   M. Shirobokov [Zhur. Eksper. Teoret. Fiziki, 1945, 15, (1/2), 57–76). –[In Russian.] The mechanism of magnetization for the simple case of a crystal having one axis of easy magnetization is investigated, on the basis of the Bloch Landau-Lifshits model.   Analysis of the solutions of the differential equations which determine the distribution of the orientation of spins in a ferromagnetic, leads to the conclusion that in the case of an external field parallel to the axis of easy magnetization (which is the only case S. considers), the magnetization mechanism consists in the growth of the domains parallel to the field at the expense of those anti-parallel to it.   In the case of very large fields the processes in intermediate layers play an important part.   The existence of nuclei of magnetic reversal for any field is deduced from the theory. – N. B. V.

METALLURGICAL LITERATURE CLASSIFICATION

IA 170724

SHIROBOKOV, M. YA.

USSR/Nuclear Physics - Scattering, Light   Jun 49

"Scattering of Light by a Spin-2 Particle," M. Ya.
Shirobokov Physicotech Inst, Gorkiy State U

"Zhur Eksper i Teoret Fiz" Vol XIX, No 6, pp 473-
486

Calculates effective cross section for scattering
of light by particle with spin 2 by quantum mechan-
ical method of correspondence. Submitted 24 Jan 49.

170T84

SA

A 53

PROCESSES AND PROPERTIES MORE

62. Theory of particles of spin 2. M. Ya. Soko-
lov. J. Exp. Theor. Phys., USSR, 19, 481-6
(June, 1949) In Russian.

It is shown that a particle of spin 2 is not possessed
of a kinematic electromagnetic dipole moment, yet of
quadrupole and octupole moments active in radiation
and not vanishing in the relativistic limiting case.
Calculations show that the effective cross-section in
optical scattering of the spin 2 particle grows in-
definitely and at an extraordinary rate, as the
frequency of the scattered light rises. As the optical
scattering on elementary particles depends essentially
on the character of the electromagnetic moment of
the scatterer, this result points to the fact that the
spin 2 particle possesses e.m. moments of order > 2.
[As surmised by Heitler and Ma, Abstr. 140 (1941)].
The calculation is based on the relativistic wave
equations of the spin 2 particle in an external magnetic
field, as given by Fierz and Pauli [Abstr. 44 (1940)],
which show the absence of a kinematic dipole
moment, whereas the detection of the true character
of the moments uses Ginsburg's method [Abstr. 2145
(1945)] of investigation of the directed radiation of a
particle uniformly moving through a medium
(Cherenkov effect).   E. F. KRAUS

A S A   S L A   METALLURGICAL LITERATURE CLASSIFICATION

SHIROBOKOV, M. YA.

USSR/Physics - Piezoelectrics   Nov 51

"Thermodynamic Theory of Piezoelectric (Rochelle-Salt) Phenomena in Crystals of the Barium Titanate Type," M. Ya. Shirobokov, L. P. Kholodenko, Phys-Tech Inst, Gor'kiy State U

"Zhur Eksper i Teoret Fiz" Vol XXI, No 11, pp 1239-1249

Develops thermodynamic theory of piezoelec phenomena in crystals of cubic symmetry. Computes tensor components of dielec consts in absence of elastic tensions in weak elec fields, and also tensor components of piezoelec moduli for all possible phases. Acknowledges assistance of Prof V. L. Ginzburg. Submitted 13 Dec 50.   204T94

SHIROBOKOV, M. YA.

USSR/Physics - Piezoelectrics   Nov 51

"Piezoelectric (Rochelle-Salt) Properties of
Crystals of the BaTiO₃ Type Near the Curie Point
in Presence of Elastic Tensions," L. P. Kholo-
denko, M. Ya. Shirobokov, Phys-Tech Inst, Gor'kiy
State U

"Zhur Eksper i Teoret Fiz" Vol XXI, No 11,
pp 1250-1261

Discusses balanced states of BaTiO₃-type crystals
near Curie point in presence of elastic tensions
for some particular cases admitting full soln.
Finds ranges of parameter values corresponding to

204T95

USSR/Physics - Piezoelectrics   (Contd)   Nov 51

all balanced states of crystal. Discusses exptl
data pertaining to electrostriction of crystal
and dependence of Curie point on pressure. Com-
putes tensor of dielec consts. Acknowledges as-
sistance of Prof V. L. Ginzburg. Submitted
22 Dec 50.

204T95

USSR/Physics - Electron scatter

FD-2342

Card 1/1   Pub. 146 - 7/34

Author   : Ovsyannikova, I. A., and Shirobokov, M. Ya.

Title   : Dynamic theory of scatter of electrons in crystals

Periodical   : Zhur. eksp. i teor. fiz. 28, 695-698, Jun 1955

Abstract   : On the basis of the dynamic theory of scattering of electrons in
               crystals in the presence of two strong beams the authors obtain a
               formula for the intensities of the symmetrically scattered beams
               of fast electrons. They consider scattering in convergent rays.
               They thank Professor Z. G. Pinsker. Five references, including
               two USSR: Z. G. Pinsker, Diffraktsiya elektronov [Diffraction of
               electrons], Acad. Sci. USSR Press, 1949; Z. G. Pinsker and B. K.
               Vaynshteyn, Acad. Sci. USSR Press, Vol. 14, 2, 1950.

Institution : Gor'kiy State University

Submitted   : May 10, 1954

SHIROBOKOV.M.YA.

PA - 3543

AUTHOR: KHOLODENKO,L.P., SHIROBOKOV,M.Ya.
TITLE: The Segnetoelectric Properties of Polarized
           Barium Titanate Ceramic. (K voprosu o segnetoelektricheskikh svoystv
           polyarizovannoy keramiki titanata bariya, Russian)
PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 5, pp 929 - 935 (U.S.S.R.)

ABSTRACT: Investigation is confined to an ideal polycrystal, i.e. hetero-
           geneity of the interior voltages, electric fields and the crystalline
           structure are neglected. It is assumed that the crystallographical
           axis of the individual crystal particles are distributed chaotical-
           ly, but that the sample in its entirety was previously polarized,
           that the vector of spontaneous polarization of each crystal particle
           shows that of the possible equivalent directions which form the
           smallest angle with the direction of the resulting polarization
           of the sample. On this basis those results may be used as were
           obtained for a monocrystal. Computation of the dielectric and piezo-
           electric properties of a polycrystalline sample is reduced to
           simple averaging. The tensors of the dielectric constants and the
           piezomoduli of the polarized ceramic of BaTiO₃ are computed for
           all three seignette-electric phases. It is of advantage to com-
           pute the tensors of the piezoelectric moduli by means of a special
           form of the tensor of the voltages σ_{ik} in an x-, y-, z-coordinate
           system, which is connected with the sample as a whole. Besides,

Card 1/2

L 6412-66   EWT(1)/T/EWA(h)   IJP(c)   AT

ACC NR: AP5027416   SOURCE CODE: UR/0181/65/007/011/3356/3362

AUTHOR: Vas'kin, V. V.; Uskov, V. A.; Shirobokov, M. Ya.

ORG: Gorskovskiy State University (Gor'kovskiy gosudarstvennyy universitet im. N. I. Lobachevskogo)

TITLE: Effect of an internal electric field on diffusion of impurities in semiconductors

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3356-3362

TOPIC TAGS: semiconductor theory, electric field, metal diffusion

ABSTRACT: This paper gives a theoretical analysis of the effect which an internal electric field generated by ionized impurity particles and current carriers has on the distribution of impurity concentration in semiconductors. It is assumed that the coefficient of diffusion is independent of concentration. The analysis is based on an approximate solution of the diffusion equation together with the Poisson equation. The calculated concentration profiles are compared with experimental data on diffusion of antimony into germanium. It is shown that when surface concentrations

Card 1/2

L 6412-66
ACC NR: AP5027416

6

are comparable to or greater than the concentration of current carriers, where the field effect becomes noticeable, the distribution of impurity atoms differs from the well known expression (*circled p 3356*) corresponding to diffusion from a constant source without regard to the field. The results may be extended to the case of acceptor diffusion into intrinsic and extrinsic semiconductors. Curves are given for α as a function of surface concentration for intrinsic semiconductors and for those predoped with donors and acceptors. In conclusion, the authors are grateful to V. S. Metrikin and V. M. Maslova for assistance in carrying out the numerical calculations on a computer. Orig. art. has: 4 figures, 24 formulas.

SUB CODE: SS,EM/ SUBM DATE: 09Mar65/ ORIG REF: 001/ OTH REF: 006

Card 2/2

ORLOV, V.P.; SHIROBOKOV, M.Ya.

Adsorption of nonpolar molecules on germanium and silicon.
Zhur. fiz. khim. 39 no.9:2215-2218 S '65.   (MIRA 18:10)

1. Gor'kovskiy issledovatel'skiy fiziko-tekhnicheskiy
institut.

L 10523-66   EWT(m)/EPF(n)-2/EWP(t)/EWP(b)   LJP(c)   JD/WW/JG

SOURCE CODE: UR/0076/65/039/010/2573/2576

76

B

ACC NR: AP5027183

(A)

AUTHOR: Orlov, V. P.; Postnikov, V. V.; Shirobokov, M. Ya.

ORG: Gor'kiy Scientific Research Physicotechnical Institute (Gor'kovskiy issle-dovatel'skiy fiziko-tekhnicheskiy institut)

TITLE: Estimate of oxygen content in germanium and silicon films obtained by vacuum deposition

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 10, 1965, 2573-2576

TOPIC TAGS: oxygen, epitaxial growing, germanium, silicon, metal vapor deposition, SEMICONDUCTING FILM

ABSTRACT: The determination of the oxygen content in evaporated germanium and silicon films was made in two steps: first the amount of oxygen adsorbed on pure Ge and Si surfaces during the deposition of a single monolayer was calculated, then the volume oxygen concentration was found by multiplying by the number of monolayers per centimeter of thickness of the film. Oxygen concentrations calculated for various deposition rates and substrate temperatures in Ge and Si films grown in the $\angle 100 \overline{/}$ direction are tabulated. The calculations were made for an oxygen pressure $P = 10^{-6}$ mm Hg; in order to obtain the concentration at other pressures P, it suffices to multiply the tabular value by 10^6 P. The results are applicable to estimates of oxygen content in Ge films grown in the $\angle 110 \overline{/}$ direction, and in Si films grown in the $\angle 110 \overline{/}$ and $\angle 111 \overline{/}$ directions. Certain conclusions are drawn regarding the conditions of growth of epitaxial films. Orig. art. has: 2 tables and 6 formulas.

UDC: 541.183+541.17

Card 1/2

L 10523-66

ACC NR: AP5027183

SUB CODE: 20 / SUBM DATE: 20Jun64 / OTH REF: 005

Card 2/2

ACC NR: AP7005129

SOURCE CODE: UR/0181/66/008/012/3467/3473

AUTHOR: Vas'kin, V. V.; Metrikin, V. S.; Uskov, V. A.; Shirobokov, M. Ya.

ORG: Gor'kiy State University im. N. I. Lobachevskiy (Gor'kovskiy gosudarstvennyy universitet)

TITLE: Influence of internal electric field on simultaneous diffusion of impurities in semiconductors

SOURCE: Fizika tverdogo tela, v. 8, no. 12, 1966, 3467-3473

TOPIC TAGS: semiconductor impurity, physical diffusion, hf transistor, germanium semiconductor, crystal effect

ABSTRACT: In view of the importance of simultaneous diffusion of two components of semiconductors to the manufacture of high-frequency transistors and similar devices, the authors investigate theoretically the influence of the internal electric field on simultaneous diffusion of donors and acceptors in an intrinsic semiconductor. The mathematical analysis yields a set of formulas and theoretical curves for the distribution of the donor concentration in a diffusion layer. The theoretical results were compared with experimental data obtained for the simultaneous diffusion, at 795C, of indium and antimony in germanium, using In^{114} and Sb^{124} as radioactive tracers. The distribution of the donors and acceptors was determined by successive removal of layers. The results have shown that the donors have little influence on the diffusion of acceptors, but the effect of acceptors on the diffusion of donors is

Card 1/2

ACC NR: AP7005829

appreciable. This is due to differences in the diffusion coefficients of the two substances. The deceleration of the donors increases the increasing acceptor concentration. For the same surface concentration of the acceptors, the influence of the acceptors on the donor diffusion is greater when the donor concentration is low. Some discrepancies between the theoretical and experimental data were observed, and these are attributed to formation of defects. Orig. art. has: 3 figures, 16 formulas, and 1 table.

SUB CODE: 20/   SUBM DATE: 07Feb66/   ORIG REF: 006/   OTH REF: 005
09/

Card 2/2

SHIROBOKOV, N.A.

External furnace for steam boilers. Spirt.prom. 23 no.6:28-29
'57.   (MIRA 10:12)

(Furnaces) (Boilers)

CHATSKIY, P.A., SHIROBOKOV, N.A.

Dextrin-producing apparatus with chamber heating. Zakh.prom.
34 no.7:69-70 Jl '60. (MIRA 13:7)

1. Chernigovskiy spirtotrest.
(Starch industry--Equipment and supplies)
(Dextrin)

CHATSKIY, P.A.; SHIROBOKOV, N.A.

Cooking potato pulp in a combined processing of potatoes.
Spirt.prom. 28 no.2:28-30 '62.   (MIRA 15:3)

1. Chernigovskiy spirtovoy trest.
                      (Distilling industries) (Potatoes)

CHATSKIY, P.A.; SHIROBOKOV, N.A.

Utilization of waste steam in the continuous boiling to pulp of
starchy raw material. Spirt.prom. 29 no.5:34-35 '63. (MIRA 17:2)

1. Chernigovskiy spirtorest.

SHIROBOKOV, N.M., general-mayor aviatsii, voyennyy letchik pervogo klassa,
    KUZNETSOV, V.A. polkovnik, voyennyy letchik pervogo klassa,
    POPOV, A.M., polkovnik; VAZHIN, F.A., podpolkovnik; NAZAROV, O.A.,
    mayor, Prinimali uchastiye: MARKOV, S.I., podpolkovnik, dotsent,
    kand. voyennykh nauk; D'YACHENKO, Yu.T., podpolkovnik, kand.
    voyennykh nauk; D'YACHENKO, G.Kh., mayor zapasa.

    Other command posts could also operate this way. Vest.Vozd.Fl.
    no.10:2-21 0 '60.   (MIRA 13:11)
                            (Aerial warfare)

SHIROBOKOV, P.A., zasluzhennyy vrach RSFSR

Work of the permanent medical task forces in Khanty-Mansi National
Area of Tyumen' Province. Zdrav. Ros. Feder. 5 no.11:24-26 N '61.
(MIRA 14:10)

1. Glavnyy vrach Khanty-Mansiyskoy okruzhnoy bol'nitsy.
(KHANTY-MANSI NATIONAL AREA—MEDICINE, RURAL)

SHIROBOKOV, Stepan Ivanovich; ALEKSEYEVA, Ye.N., red.; VORONTSOVA, Z.Z.,
        tekhn. red.

[The Udmurt A.S.S.R.; economic and geographical features] Udmurt-
skaia ASSR; ekonomiko-geograficheskaia kharakteristika. Izhevsk,
Udmurtskoe knizhnoe izd-vl, 1961. 214 p.   (MIRA 15:1)
                (Udmurt A.S.S.R.—Economic geography)

L 3918-66   EWT(1)/EWA(j)/EWA(b)-2   JK
ACCESSION NR: AP5023552   UR/0219/65/060/008/0089/0092
                                                   576.858.23.098.06

AUTHOR: Shirobokov, V. P.

TITLE: Infectivity of total RNA recovered from new-born mice infected with Cox-
sackie A-10 virus

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 60, no. 8, 1965,
89-92

TOPIC TAGS: virus, nucleic acid, ribonucleic acid, desoxyribonucleic acid, enzyme,
infective disease, nervous system disease

ABSTRACT: Infectious RNA was extracted from the carcases of new-born mice infected
with Coxsackie A-10 virus. It was found that infectivity of the RNA preparations,
as determined by % deaths of mice infected, was significantly higher in subcuta-
neous inoculations than in intraperitoneal (95% in s.c., 62% in i.p.). This dif-
ference is attributed to the presence of RNA-ase in the peritoneal fluid. To de-
termine if the active element in the preparations was RNA itself or some contami-
nant, the preparations were treated with nucleases. The results indicated that it
is indeed the RNA which is responsible for the infectivity since the RNA prepara-

Card 1/2

L 3918-66   *3*
ACCESSION NR: AP5023552

tions treated with DNA-ase and whole virus suspensions treated with RNA-ase produc-
ed mortalities of 83% and 100%, respectively, as compared to 0.18% with RNA-ase
treated RNA preparations. It was also found that bentonite stabilizes the RNA
solutions since without it the preparations lost their infectivity after 24 hour
storage at 4°C. This is attributed to the ability of bentonite to inactivate RNA-
ase. Although the present investigation has shown the infectivity of total RNA,
it is not yet clear what role, if any, is played by cellular RNA and protein,
whether RNA from purified virus is infectious, or which of the ribonucleic acids
constituting total RNA are infectious and which are not. Orig. art. has: 3 tables.

ASSOCIATION: Kafedra microbiologii Kievskogo meditsinskogo instituta (Department
of Microbiology, Kiev Medical Institute)   4415

SUBMITTED: 14Apr64   ENCL: 00   SUB CODE: LS

NO REF SOV: 004   OTHER: 009

Card 2/2

USSR/General Problems of Pathology - The Pathophysiology of the   U
Infectious Process.

Abs Jour   :   Ref Zhur Biol., No 1, 1959, 4114

A t   :   Ichinova, L.M., Shirobokov, V.V.

Inst   :   Kuybyshevk Society of Anatomo-Pathologists with a
Section of Pathophysiology.

Title   :   On the Problem of Neuroreflex Mechanisms in the
Pathogenesis of Dysentery.

Orig Pub   :   Sb. nauchn. rabot Kuybyshevsk. o-va patologoanatomov s
sektsiyey patofiziol. Kuybyshev, 1957, 37-46

Abstract   :   In experiments on dogs and rabbits the administration of
the dysenteric antigen (endotoxin of Flexner's bacillus
or vaccine) intravenously or into the lumen of the intes-
tine, or into its blood vessels, led to excitation of
the respiratory movements and to an insignificant

Card 1/2

USSR/General Problems of Pathology - The Pathophysiology of the   U
Infectious Process.

Abs Jour : Ref Zhur Biol., No 1, 1959, 4114

elevation of the arterial pressure. Following antigenic
stimulation of the interoceptors of the small intestine
an insignificant constriction of the blood vessels, a
brief depression of peristalsis and a fall of the muscu-
lature tonus occurred in the large intestine. The thres-
hold of excitability of the baroreceptors of the small
intestine decreased to a greater extent than that of the
large intestine i.e., the excitability of the receptors
of the intestine to mechanical stimulation increased fol-
lowing contact with the antigen injected into the blood.
-- K.D. Gruzdev

Card 2/2

- 17 -

ISHIMOVA, L.M., SHIROBOKOV, V.V. (Kuybyshev).

Viscero-visceral reflexes in the intestine in experimental dysentery intoxication. Pat.fiziol. i eksp.terap. 2 no.4:15-20 Jl-Ag '58
(MIRA 11:12)

1. Iz kafedry patologicheskoy fiziologii (zav. doktor med.nauk L.M. Ishimova) Kuybyshevskogo meditsinskogo instituta.
(DYSENTERY, BACILLARY, exper.
viscero-visceral intestinal reflex changes in dogs
(Rus))

AUTHOR: Vasil'yev, B. V.; Tarakanov, O. G.; Demina, A. I.;
Shirobokova, A. I.

ORG: Scientific Research Institute of Synthetic Resins (Nauchno-
issledovatel'skiy institut sinteticheskikh smol)

TITLE: Investigation of polyurethane crystallization

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 5, 1966, 938-942

TOPIC TAGS: polyurethane, crystal lattice, glycol, isocyanate, polymer
crystallization, copolymerization, molecular weight

ABSTRACT: The crystallization capacity and morphological structural
types as a function of the chemical composition of polyurethane has
been studied. The crystalline lattice of polyurethane depends on the
initial isocyanate and glycol structures. The crystallization capacity
of polyurethane drops with an increase in the polyester molecular weight
up to 1000. In the case of polymers with a polyester base and molecular
weight above 1000, the polyurethane could crystallize. However, in this
case the crystalline lattice structure does not depend on the diiso-
cyanate structure but only on the polyester structure. The degree of

UDC: 678.01:53+678.664

Card 1/2

L 24003-00

ACC NR: AP6015058

0

crystallization can be changed by copolymerization. Orig. art. has:
7 figures.
[NT]

SUB CODE: 11, 07/ SUBM DATE: 26May65/ ORIG REF: 009/ OTH REF: 005

Card 2/2   BLG

S/196/62/000/009/004/018
E114/E184

AUTHOR: Shirobokova, A.P.

TITLE: Comparative thermo-magnetic treatment in direct
             and alternating fields

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika,
             no.9, 1962, 1, abstract 9 B4. (Materialy nauchn.
             konferentsiy. Izhevskiy s.-kh. in-t, no.8, 1961,
             65-70).

TEXT: Studies were made of the effects of thermo-magnetic
treatment, at a field strength of 50 oersted, on the magnetising
curve of a specimen strip of transformer steel sheet and on a
nickel wire specimen. It was established that for nickel the
maximum permeability increases by 5% for thermo-magnetic
treatment in a d.c. field, and by 4% if a 50 c.p.s. field is
applied: for transformer sheet the increase was 18% and 30%
respectively. An attempt is made to explain the different
results obtained in a d.c. and an a.c. field by utilizing the
hypothesis of Shur and Glyazer on the new structural state

Card 1/2

Comparative thermo-magnetic ...   S/196/62/000/009/004/018
                                         E114/E184

formed during thermo-magnetic treatment.
5 references.
[Abstractor's note: Complete translation.]

Card 2/2

SHIROBOKOVA, M.M., kand.veter.nauk

Survival of tuberculosis pathogens in peat manure.
Veterinariia 41 no.10:71-74 O '64.

(MIRA 18:11)

1. Leningradskiy veterinarnyy institut.

SISA[...]OVA, [...], Sen Yet Sei — ([...]) "[...]ary-military condition [...] and l husbandry [...] of the [...] one of Lenin-[...]," [...], 195[...]. 16 pp (Min of the USSR. Sen Vet Inst), [...] copies

([...],[...],[...])

-?4-

SHIROBOKOVA, M.M., kand. veterin. nauk

Disinfecting containers for the transportation of eggs. Veterinariia
38 no.8:69 Ag '61   (MIRA 18:1)

1. Leningradskiy veterinarnyy institut.

KARKADINOVSKAYA, I.A., doktor veterin. nauk; ZUBKOV, A.P., assistent;
     SHIROBOKOVA, M.M., kand. veterin. nauk

     Improvement of the serological diagnosis of brucellosis in
     cattle. Veterinariia 38 no.11:73-76 N '61   (MIRA 18:1)

     1. Leningradskiy veterinarnyy institut.

ACC NR: AP5028131   :.P(:)/EWA(:)   SOURCE CODE: UR/0048/65/029/011/2104/2106
                      IJP(c)   JD/GG/WH

AUTHOR: Vorbitskaya, T. N.; Aleksandrova, L. M.; Shirobokova, Ye. I.

ORG: none

TITLE: Electric properties of "Varikond" films with square hysteresis loops /Report,
Fourth All-Union Conference on Ferro-electricity held at Rostov-on-the Don 12-16
September 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 11, 1965, 2104-2106

TOPIC TAGS: ferroelectric material, ceramic material, ceramic film, Curie point,
dielectric constant, nonlinear effect, electric polarization, hysteresis loop

ABSTRACT: In an effort to obtain a ferroelectric ceramic with a highly nonlinear
dielectric constant and a nearly rectangular dielectric hysteresis loop, the authors
have investigated materials with a nearly cubic rhombohedral perovskite structure and
have synthesized by undisclosed techniques a (possibly barium titanate base) ceramic
of undisclosed composition with they call "VK-6" and which has the following proper-
ties: Curie point, above 200°C; coercive field, 5-7 kV/cm, total polarization, 18-20
$\mu C\ cm^2$; resistivity, 10^{12} ohm cm at 100°C; nonlinearity factor (ratio of maximum to
low-field dielectric constant), 20-50; and hysteresis loop squareness ratio (T.N.
Verbitskaya, L.M.Aleksandroba, and L.S.Sinitsyna, Izv. AN SSSR. Ser. fiz., 24, No. 10,
1291 (1960)), 0.85-0.94. Disadvantages of this material are its high coercive and

Card 1/2

L 7852-66

ACC NR: AP5028131

control fields. In an effort to eliminate these disadvantages, thin (5 to 100 μ) films of VK-6 were produced by an undisclosed technique and their ferroelectric properties were investigated. The Curie points, weak-field dielectric constants, squareness ratios, and saturation polarizations were approximately the same for the thin films as for the bulk material. The maximum dielectric constant was reduced from 2×10^4 for the bulk material to 10^4 for the 5-10 μ films, and the nonlinearity factor was therefore correspondigly reduced. The potential at which the dielectric constant was maximum, however, was reduced from 250 V for the bulk material to 10-20 V for the 5-10 μ films, and the saturation voltage was reduced from 600-800 V to 60-100 V. The pulse amplitude controlling switching was 30-60 V for the 10 μ films, and the switching time on a 10 ohm line was 0.3-0.7 μ sec. It is concluded that thin films of VK-6 can be produced which retain the high nonlinearity and hysteresis loop rectangularity of the bulk material and have considerably reduced controlling and switching voltages. Orig. art. has: 3 figures and 1 table.

SUB CODE: SS, EM   SUBM. DATE: 00/   ORIG. REF: 003   OTH REF: 002

Card 2/2

SHIROCHENKO, V.

Indexes of the plan for ship repair. Mor.i rech.flot 13 no.5:20-22 S '53.
(MIRA 6:10)
(Ships--Maintenance and repair)

Shirochenko, V.E.

SINYUTIN, B.P.; SHIROCHENKO, V.E.; BIRYUKOV, Yu.P., professor, redaktor;
        VOLCHOK, K.M., tekhnicheskiy redaktor.

        [Ways of economizing nonferrous metals in ship repairs] Puti
        ekonomii tsvetnykh metallov pri sudoremonte. Pod. red. IU.P.
        Biriukova. Leningrad, Gos. izd-vo vodnogo transporta, 1954.
        215 p.   (MLRA 7:12)
                (Nonferrous metals)(Ships--Maintenance and repair)

SHIROCHENKO, V.Ye., inzhener

Reinforcement weld deposition on brass rods. Svar.proizv. no.7:23-24
Jl '55. (Electric welding) (MIRA 8:9)

SHIROCHENKO, V., inzhener.

Producing packing glands for ship refrigerators. Mor.flot 15 no.2:
26-27 F '55.   (MIRA 8:5)
        (Packing (Mechanical engineering))

SHIROCHENKO, Vladimir Yevdokimovich; ZENEVICH, O.R., red.; BEGICHEVA, M.N.,
tekhn.red.

[Material saving practices of the Odessa shipbuilding and ship
repairing plant] Opyt ekonomii materialov na Odesskom sudostroitel'-
no-sudoremontnom zavode. Moskva, Izd-vo "Morskoi transport," 1957.
94 p.   (MIRA 11:2)
          (Odessa--Shipbuilding)

FLORINSKIY, F.V., prof.; VOLOSHINA, L.P., dots.; LYAKHOVITSKIY, S.I., kand.
tekhn.nauk; SHIROCHENKO, Ye.V., dots. [deceased]; ARCHAKOVA, L.A.,
inzh.; GVAY, T.B., Inzh.; MURZINA, Z.I., inzh.

Results of research on screen vibrating in the horizontal horizontal
plane. Izv.vys.ucheb.zav.; gor.zhur. no.2:167-170 '60.

(MIRA 14:5)

1. Dnepropetrovskiy gornyy institut.
(Screens (Mining))

SHIROCHENKO, Ye.V., kand.tekhn.nauk [deceased]; CHUDNOVSKIY, V.Yu., inzh.;
TRUDOV, V.N., inzh.; KUDLOV, L.V., inzh.; MURZINA, Z.I., inzh.

Experimental checking of the design calculations of the metal
structures of mobile transport bridges. Ugol' Ukr. 6 no.5:
13-16 My '62.   (MIRA 15:11)

1. Dnepropetrovskiy gornyy institut.
              (Transport bridges—Design and construction)
                   (Ukraine—Strip mining)

Quantitative protein content of the plasma of donors. T. N. Shirochenkova. *Zdravookhranenie Sovet. Latvii* 1953, No. 10, 61-61. *Referat. Zhur., Khim.* 1954, No. 27398.—The content of protein in blood plasma, the relation between protein and hemoglobin, and the no. of erythrocytes were detd. in 500 donors of which 82% were women and 18% were men. No definite relation could be established between these blood components. The serum protein was 6.5 to 9%. An intake of 1 l. of liquid by the donor had practically no effect on the protein content. Repeated blood giving had no effect on the quantity of proteins. Only after blood-letting (30-60 min. after) did the quantity of protein in the plasma slightly decrease (0.2-0.35%).
                                                    M. Hoseh

H . . 'TCTTAYA, .V.

Sub division of welsh electro . . . sering linstrements. Las.
redh. no. 7246-2. Vr '60   (4 BA   '65)

SHIROCHENSKIY, N.

Radio-Ashkhabad

Pupils of the Ashkhabad radio club.
Radio No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1952.   UNCLASSIFIED.

SHIROCHENSKAYA, I.V.

Basic trends of information services in the area of mensuration
and measuring equipment. Standartizatsiia 29 no.10:49-50 O '65.
(MIRA 18:12)

KRUG, Yelena Karlovna, kand. tekhn. nauk; SHIROCHENSKIY, Sergey
    Ivanovich, inzh.; MORDVINOVA, N.P., inzh., ved. red.;
    GONCHAROV, I.V., kand. tekhn.nauk, red.; PCNOMAREV, V.A.,
    tekhn. red.

    [Contactless control device with impulse control of the
    executive motor]Beskontaktnoe reguliruiushchee ustroistvo s
    impul'snym upravleniem ispolnitel'nym dvigatelem. Moskva,
    Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 9 p.
    (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt.
    Tema 42. No.P-58-47/4)   (MIRA 16:2)
         (Automatic control) (Electric controllers)

DEMENT'YEV, V.A., kand.tekhn.nauk; OSHANIN, D.A., kand.pedagog.nauk;
VENDA, V.F., inzh.; GROUNDON, R.R., inzh.; MEL'NIKOV, I.V., inzh.;
NECHAYEV, B.Ya., inzh.; RYBACHEV, N.V., inzh.; SMIGEL'SKIY, S.Ya.,
inzh.; STEPANOV, V.I., inzh.; TIMOFEYEV, V.A., inzh.; SHIROCHENSKIY,
V.I., inzh.

Control of the operation of an overall automatic block. Mekh.
i avtom.proizv. 19 no.2:47-52 F '65.

(MIRA 18:3)

SHIROCHIN. A.N.

Prevention of agricultural traumatism. Zdrav. Bel. 8 no.6:
54-55 Je '62.   (MIRA 16:8)

1. Iz travmatologicheskogo otdeleniya (zav. A.N. Shirochin)
Vileyskoy oblastnoy bol'nitsy Minskoy oblasti (glavnyy vrach
A.S.Romashko).
        (AGRICULTURE--SAFETY MEASURES)

Po—4/Pt—4/Po—4 'Po—4   IJP(c)   GG/38

AUTHOR: ... on re n.. V. P.

TITLE: ...ructure of a 'man-machine' coupling in a system of group programed ... a digital computer

SOURCE: IVUZ. Radiotekhnika, v. 7, no. 5, 1964, 556-562

TOPIC TAGS: student teaching, digital computer teaching, programed teaching

ABSTRACT: The coupling between a 200-student group and a "Minsk"-type digital computer is considered in a teaching-learning "combined" system which ...ludes programed textbooks, texts, and a universal noiseless multichannel ... Each student has a benchboard with a keyboard for setting up the ... and a signal register supplying the computer's recommen- ...ions. The computer analyzes the student's answer, evaluates it, and issues a corresponding instruction or recommendation. The coupling system (consisting

Card 1/2

L 25753-65
ACCESSION NR: AP5002036

O

of Soviet equipment described in some detail) comprises a switch, a distributor,
and a buffer storage. The switch is intended for sequential connection of bench-
board code trunks to the computer and for connecting the computer to the bench-
boards. The distributor changes the switch operation from input to output and
- reversa The buffer storage holds the recommendation code during the time
of decoding of the benchboard number by the switch. A medium-speed (about
1   operations per sec) machine is required. Orig. art. has: 6 figures and

ASSOCIATION. none

SUBMITTED: 25Jan64   ENCL: 00

SUB CODE DP   NO REF SOV: 002   OTHER: 000

RAKUT', V.S.; SHIROCHINA, V.P.

> Pregnancy and the course of labor in the case of a double
> uterus. Zdrav. bel. 8 no.1:62-63 Ja '62.   (MIRA 15:3)
>
> 1. Iz kafedry akusherstva i ginekologii (zaveduyushchiy – prof.
> I.M. Starovoytov) Minskogo meditsinskogo instituta i Vileyskoy
> oblastnoy bol'nitsy (glavnyy vrach A.S. Romashko).
>   (UTERUS—ABNORMITIES AND DEFORMITIES)
>   (PREGNANCY, COMPLICATIONS OF)
>   (LABOR, COMPLICATED)

KULIK, V.T.; SHIROCHIN, V.P.

Structure of a communication system "man-machine" in a group programme teaching system with an electronic digital computer. Izv.vys.ucheb.zav.; radiotekh. 7 no.5:556-562 S-O '64.

(MIRA 18:4)

Raman spectra of azlactones and amide-imide tautomerism. D. I. Shirogin and Ya. K. Syrkin (Karpov Phys. Chem. Inst., Moscow). *Invest. Akad. Nauk. S.S.S.R., Otdel. Khim. Nauk* 1946, 59–63 (in Russian).— The Raman lines (cm.$^{-1}$) and intensities (on a 10 scale)

of 3 compds

$R_1 = H$, $R_2 = Ph$ (m 95°); (II) $R_1 = Ph$, $R_2 = H$, $R_3 = Me$ (m 151°); (III) $R_1 = Me$, $R_2 = Me$, $R_3 = Ph$ (m 100°), all 3 in 13–15 mole % soln. in CHCl$_3$, and of (IV)

Me$_2$C—C, in aq. soln., are given. I. 1770 (2), 1660(3), 1598(6), 1584(5), 1567(10, b), 1386(2), 1353(2), 1172(2), 1134(1 5), 1100(1.5), 1023(2), 996(5), 917(1), 879(1), 872(1), 688(2), 621(1), 591(1), 457(1). II. 1766(2), 1653(3), 1596(8), 1582(8), 1556(10, b), 1484(2), 1449(4), 1360(4), 1321(2), 1290(2), 1258(1.5), 1114(1.5), 1008(2), 1024(2), 997(5), 922(2), 882(2), 775(1), 700(1), 588(1), 530(1 5). III. 1753(2), 1647 (3), 1598(6), 1584(5), 1565(10, b), 1472(2), 1413(2), 1366(1), 1286(1), 1100(1.5), 1100(1 5), 996(5). IV. 1737(2), 1658(3), 1615(3), 1694(5), 1415(2), 1376(1), 1244(1 5), 1221(3), 1148(3), 1023(2), 1008(6). By com-

parison with other compds contg conjugate C:C and C:O bonds, the assignments are made: C:C, I 1567, II 1556, III 1565; C:O, I 1660, II 1653, III 1647; C:N, I 1770, II 1766, III 1737. The C:C and the C:O frequencies are distinctly lower in azlactones than in ketones and ethylenic hydrocarbons; this indicates presence of structures

and On the other

hand, the CN frequency is higher by 85–120 cm.$^{-1}$ than the usual 1650; this indicates some extent of triple bonding, that is occurrence of structures of the type of an inner salt with quadrivalent pos N and univalent neg. O,

of the type and This

A.S.B.—II.A METALLURGICAL LITERATURE CLASSIFICATION

is in keeping with the case of splitting along C –O. As compared with C₆H₅, the frequencies 1508 and 1592 are much more intense in azlactones, becoming comparable to 1537; this shift of intensities is evidently linked with the presence of conjugation. Occurrence of the C:N frequency 1737 in IV, along with C:C 1635 and C:O 1656, demonstrates amide-imide tautomerism

$$Me_2C:C.COO^- \quad \underset{\underset{Ph}{|}}{N:COH}$$
$$Me_2C:C.COO^- \quad \underset{\underset{Ph}{|}}{HN.CO}$$

of the anion resulting from hydrolysis of III in alk. soln. The high value of the CN frequency is explained, as in azlactones, by its partly triple-bond character, owing to

$$Me_2C:C.COO^-$$

occurrence of the structure

$$N:C \quad OH^-. \quad The$$
$$Ph$$

corresponding resonance energy gain detg. stabilization of the energetically less favored imide form.   N. T.

SHIROGIN, D. N.

USSR/Physics - Oscillatory Spectra   Sep/Oct 53

"Investigation of Structure of Intercomplex Compounds by Method of Oscillatory Spectra in Connection With the Problem of the Nature of the Hydrogen Bond," D. N. Shirogin, Phys Chem Inst im Karpov

Iz Ak Nauk, Ser Fiz, Vol 17, No 5, pp 596-603

Develops further theory of structure of the intercomplex compd, founded by L. A. Chuguyev (Issledovaniya v oblasti kompleksnykh soyedineniy [Investigations in the field of complex compounds] 1906)

274T94

by using the methods of Raman spectroscopy and of infrared absorption. Attempts to connect the obtained results with the nature of chem structure of intercomplex compds.

SHIROGIN, . M.

"The Nature and Effect of the Hydrogen- and Mental Element Binding."

report presented atScientific Conference at the Inst. for Physical Cemistry imeni L. Ya. Karpov, Acad. Sci. USSR, Nov 1957.

SHIROGIN, G. G.

Shirogin, G. G. "Possibilities of eliminating bends in the public service net-work of the Leningrad canal system," Sbornik materialov po kommunal. knoz-vu No. 5, 1948, p. 51-53

SO: U-2880, Letopis Zhurnal'nykh Statey, No. 1, 1949

SHIROGIN, V.P.

Bridge circuit for comparing standard and calibration
resistances in the range from 0.001 to 100,000 ohm.
Izm.tekh. no.4:33-36 Ap '60.   (MIRA 13:8)
        (Bridge circuits) (Electric measurements)

SHIROGLAZOVA, M.A.

J.

USSR/Corrosion - Protection From Corrosion

Abs Jour   : Referat Zhur - Khimiya, No 9, 1957, 33162

Author   : Cherkasov, N.Kh., Shapko, T.S., Shiroglazova, M.A.
Inst   :
Title   : Corrosion of Primary Gas Concensers

Orig Pub   : Koks i khimiya, 1956, No 5, 45-48

Abstract   : The causes have been determined of the corrosion of prima-
ry gas condensers at the Nizhne-Tagilsk coking plant.
To control the corrosion it is proposed to treat the water
with water glass.

Card 1/1

ACC NR: AP7004994   SOURCE CODE: UR/0048/66/030/009/1530/1532

AUTHOR: Abdullayeva,V.G.; Ivanov,Ye.L.; Shirogorov,A.A.

ORG: none

TITLE: Some problems encountered in investigating "optronic" circuits /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no.9, 1966, 1530-1532

TOPIC TAGS: electroluminescence, photoconductor, flip flop circuit, electroluminescence panel

ABSTRACT: The "optronic" circuit discussed in this paper consists of an electroluminescence cell and a photoconductor connected in series and with optical feedback between them. Such a system can operate in one of three regimes, depending on the characteristics of the electroluminescence cell and the photoconductor, the supply voltage, and the feedback constant: an amplifying regime, in which there is one stable equilibrium of low brightness: the optron regime, in which there are low- and high-brightness stable equilibria and an intermediate-brightness unstable equilibrium; and a self-excited regime, in which there is one high-brightness stable equilibrium. In this paper design equations are derived for this system on the assumptions that the brightness of the electroluminescence cell is proportional to the 3.39-th power

Card   1/2

1. SHIROGOROV, S. V.

2. USSR (600)

3. Wood Pulp Industry

4. Burning pulverized pyrite in a calcinating kiln.
   Bum. prom. 17 No. 7 - 1952.

9. Monthly List of Russian Acessions, Library of Congress, February, 1953. Unclassified.

SHIROKALOV, M.G., inzhener.

Skidding 75 cubic meters of timber per shift with a TL-3 winch.
Les.prom.14 no.4:20 Ap '54.   (MLRA 7:4)

1. Trest Serovlesdrevmet.   (Lumbering--Machinery)

SHIROKAYA. V M.

B*

Section 9

Adaptation of gastric interoceptors. V. M. Shirokaya U. *Physiol*. USSR, 1951, 87, 608—613).—The action currents in the frog's vagus nerve were recorded in response to pressure changes in the stomach

caused by inflation of a small balloon. Slowly rising pressures of 0—90 mm. Hg. did not produce a nerve response but rapidly rising pressure caused a volley of impulses which showed rapid adaptation. Oscillating pressures produce a prolonged activity which showed little adaptation. The rate and amplitude of the electrical responses is related to the degree of stretching of the stomach.

D. H. SMYTH.

Dept. of the Physiol. of the Nervous System, Inst. of Physiol, AMS USSR, Moscow

On the

SHIROKAYA, V. M. Cand Med Sci -- (diss) "affect of closed artificial pneumo-

thoraxes upon respiration and the central nervous system (On the reflex

mechanism of pneumothoraxes)." Ryazan', 1958. 19 pp (Ryazan' Med Inst im

Academician I. P. Pavlov) Chair of Normal Physiology. Chair of Pathological

Physiology of Rostov-on-Don Med Inst), 200 copies (KL, 52-58, 108)

SHIROKAYA, V.M.

Observation of the state of the organ of vision in the workers
of the carbon disulfide and spinning departments of the Ryazan
Combine of Artificial Fibers. Nauch. trudy Riaz.med.inst. 23:104-
109 '63.   (MIRA 18:12)

1. Kafedra glaznykh bolezney (zav. kafedroy - prof. T.A.Shatilova)
Ryazanskogo meditsinskogo instituta imeni akademika I.P.Pavlova.

VERETENENKOV, Leonid Porfir'yevich; IL'IN, Aleksandr Ivanovich, RAIMOV, Mikhail Mikhaylovich; VEDE---, V. , doktor tekhn. nauk, prof., laureat Leninskcy premii, retsenzent; SHIROKHOV, Ye.I., nauchn. red.; ------, ---., red.

[Modeling, computer techniques, an transient processes in electric ship propulsion system] Modelirovanie, vychislitel'naia tekhnika i perekhodnye protsessy v sudovykh elektroenergeticheskikh sistemakh. Leningrad, Sudostroenie, 1964. 383 p. (MIRA 18:1)

SHIROKIKH, D.P., kandidat pedagogicheskikh nauk; IZVOZCHIKOV, V.P., kandidat sel'skokhozyaystvennykh nauk; YELENEV, L.K., kandidat biologicheskikh nauk.

Serious shortcomings of a textbook ("Principles of crop cultivation; part 1: general agriculture; textbook for grade 8 of rural secondary schools" by M.I. Dolgopolov. Reviewed by D.P. Shirokikh, V.P. Izvozchikov, and L.K. Elenev.) Biol.v shkole no.1:86-88 Ja-F '57.
(MIRA 10:5)

1.Krasnodarskiy pedagogicheskiy institut.
(Agriculture) (Dolgopolov, M.I.)

BORISOV, V.I.; STEN'KO, M.N.; SHIROKHIKH, D.P.

Shortcomings of a zoology trial textbook ("Zoology"; textbook
for secondary schools by V.F. Natali. Reviewed by V.I. Borisov,
M.N. Sten'ko, D.P. Shirokikh). Biol. v shkole no.5:93 S-O '58.
(MIRA 11:11)

1. Krasnodarskiy pedagogicheskiy institut.
   (Zoology--Study and teaching)   (Natali, V.F.)

SHIROKIKH, D.P. (g.Krasnodar); BORISOV, V.I. (g.Krasnodar)

Our first experience in conducting pedagogical training in the fundamentals of agriculture. Politekh.obuch. no.5:68-71
My '59.   (MIRA 12:7)
            (Krasnodar--Teachers, Training of)
            (Agriculture--Study and teaching)

SHIROKIKH, D.P.,kand.ped.nauk

Botany teaching in secondary schools. Biol. v shkole no.1:35-
38 Ja-F '59. (MIRA 12:2)

1. Krasnodarskiy pedagogicheskiy institut.
(Botany--Study and teaching)

BORISOV, V.I., kand.geograficheskikh nauk; SHIRCKIKH, D.P.,
        kand.geograficheskikh naud; VERCHENKO, P.A.

        "Children's encyclopedia," Vol. 4. Reviewed by V.I. Borisov,
        D.P. Shirokikh, P.A. Verchenko. Biol. v shkole no.3:91-93
        MY-Je '61.   (MIRA 14:7)
                    (Children's encyclopedias and dictionaries)

SHIROKIKH, D.P., kand.pedagogicheskikh nauk; NEGINSKAYA, I.F., uchitel'nitsa

Combining biology instruction with practical work of students
on a school lot. Biol. v shkole no.5:45-48 S-O '62. (MIRA 16:2)

1. Krasnodarskiy pedagogicheskiy institut (for Shirokikh).
2. Vos'miletnyaya shkola No.27 stanitsy Medvedovskoy
Timashevskogo rayona Krasnodarskogo kraya.
            (Biology—Study and teaching)
            (Agriculture—Experimentation)

SHIROKHIKH, F.T.; GINZBURG, B.L.

Strengthening the material base of the public health system in a
task for all. Zdrav. Bel. 7 no. 4:18-20 Ap '61. (MIRA 14:4)

1. Predsedatel' ispolkoma Vitebskogo rayonnogo Soveta deputatov
trudyashchikhsya (for Shirokikh). 2. Glavnyy vrach Vitebskogo
rayona (for Ginzburg).
(VITEBSK DISTRICT—PUBLIC HEALTH, RURAL)

SHKADILOV, I.

Foundry equipment at the Fifth International Fair in Brno.
Lit. proizv. no.3:16-23 Mr '64.   (MIRA 18.9)

SHIROKIKH, Ivan Ivanovich; KUZNETSOV, S.P., red.; PASECHNIK, A.F.,
        red. izd-va; RUBINOVA, L.Ye., tekhn. red.

    [The slide rule and its uses; practical handbook] Logarifmiche-
    skaia lineika i ee primenenie; prakticheskoe rukovodstvo. Izd.4.,
    isp. i dop. Tomsk, Tomskoe knizhnoe izd-vo, 1961. 85 p.
                                                       (MIRA 15:2)
        (Slide rule)

SHIROKIKH, Ivan Ivanovich; KUZNETSOV, S.P., red.

[The slide rule and its use; practical handbook] Logarif-
micheskaia lineika i ee primenenie; prakticheskoe rukovod-
stvo. Izd.5., ispr. i dop. Tomsk, Tomskoe knizhnoe izd-
vo, 1964. 139 p.   (MIRA 17:9)

L 44290-66   EWT(m)/EWP(j) . WW/JW/RM

ACC NR: AP6026152   SOURCE CODE: UR/0076/66/040/007/1650/1652

AUTHOR: Shirokikh, P. K.; Bystrov, V. M.; Ponomarev, V. V.; Solntsev, V. A.
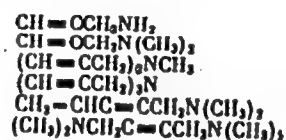
ORG: Moscow University im. M. V. Lomonosov, Chemistry Department
(Moskovskiy gosudarstvennyy universitet, Khimicheskiy fakul'tet)

TITLE: Heats of combustion and enthalpies of formation of some
acetylenic amines

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 7, 1966, 1650-1652

TOPIC TAGS: acetylenic amine, heat of combustion, enthalpy of formation

ABSTRACT: The authors have prepared high-purity samples of the fol-
lowing acetylenic amines:

$$CH \equiv CCH_2NH_2$$
$$CH \equiv CCH_2N(CH_3)_2$$
$$(CH \equiv CCH_2)_2NCH_3$$
$$(CH \equiv CCH_2)_3N$$
$$CH_2-CHC \equiv CCH_2N(CH_3)_2$$
$$(CH_3)_2NCH_2C \equiv CCH_2N(CH_3)_2$$

The heats of combustion of these amines were determined calorimetrically
by a procedure described in the source. The values of the heats of

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ACC NR: AP6026152

combustion (after the necessary corrections) and the calculated values of enthalpies of formation of the amines are given in Table 1. The calculation procedure is explained in the source. Orig. art. has: 2 tables. [BO]

Table 1.

Compound	$-\Delta U$, cal/g. V = const; T = 293,16C	$-\Delta H$, kcal/mol. p = const; T = 293,16C	ΔH°_{form} kcal/mol T = 293.16C
C_5H_5N	9115,7 9105,3 9110,1 Average 9110,4±3,6	502,2±0,2	49,2±0,2
C_6H_7N	8916,7 9903,9 9914,0 Average 9911,5±5,1	825,0±0,4	47,1±0,4
C_7H_9N	10040,5 10017,8 10048,6 10044,1	1077,4±0,3	111,4±0,3

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Continuation of Table on card 2/3

C_6H_9N	Average 10045,0±2,7 10273,2 10272,4 10274,7	1318,7±0,1	194,6±0,1
$C_7H_{11}N$	Average 10273,4±0,8 9995,5 10000,8 10005,3 9997,5	1093,0±0,4	58,7±0,4
$C_6H_{11}N_3$	Average 9999,8±3,3 9535,5 9534,1 9532,7 9529,2	1338,6±0,3	39,3±0,3
	Average 9532,0±1,9		

SUB CODE: 07/   SUBM DATE: 10Aug65   ORIG REF: 002   OTH REF: 005

Card 3/3   mjs

SHIROKIKH, V.N.

Uniformity of visual images and their association with words.
Vop. psikhol. 9 no.5:171-175 S-O'63.   (MIRA 17:2)

1. Kafedra psikhologii Moskovskogo gosudarstvennogo pedagogicheskogo
instituta imeni Lenina, Moskva.

BILIK, Sh.M., doktor tekhn. nauk; SHIROKIKH, V.P., inzh.

Plastic friction pairs for railroad rolling stock. Trudy
TSNII NPS no.242:45-61 '62.   (MIRA 16:6)

(Plastics)
(Railroads—Equipment and supplies)

ACCESSION NR: AT4028413

AUTHOR: Bilik, Sh. M. (Doctor of Technical Sciences); Luk'yanchikov, I. K. (Engineer);
Oganesov, A. S. (Engineer); Shirokikh, V. P. (Engineer)

TITLE: Experimental use of antifriction polymer materials in locomotives

TOPIC TAGS: antifriction material, antifriction polymer, locomotive, plastics,
metal polymer, wear, antifriction disc, floating collars

ABSTRACT: The authors have undertaken a study to determine means for meeting in-
creased reliability and life span requirements of friction points in moving parts
of trains, due to the rapid growth and increased speed of the railroad transport.
The study concentrated on metal-polymer friction couplings. After laboratory and
test stand experiments, a number of metal-polymer couplings were installed on loco-
motives for experimental use. Some of these materials were made completely of plastic
others from metal components covered with an antifriction polymer layer. The authors
list the results using the latter in various components, such as antifriction discs

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ACCESSION NR: AT4028413

of electric locomotives, floating collars of the main axles of steam locomotives, the slip rod collars of steam locomotives, the slip cover plates of locomotives, valves of steam locomotives, etc. on various rail lines of the Soviet Union. As a result of their investigations, the authors hope that in the immediate future, plastics will be substituted for nonferrous metals to a significant degree in railroad rolling stock and will thereby increase the operation of friction points of the moving parts. Orig. art. has: 11 figures and 5 tables.

ASSOCIATION: Vsesoyuzny*y nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta (All Soviet Railroad Scientific Research Institute)

SUBMITTED: 00　　　　　　DATE ACQ: 16Apr64　　　　　　ENCL: 00

SUB CODE: MA　　　　　　NO REF SOV: 004　　　　　　OTHER: 000

Card 2/2

BILIK, Sh.M., doktor tekhn.nauk; D'YACHKOV, A.K., doktor tekhn.nauk;
MAKHOVENKO, A.I., inzh.; SHIROKIKH, V.P., inzh.

Antifriction materials for the end thrusts of diesel locomotives
based on the compositions of stannous bronze and fluoroplast.
Trudy TSNII MPS no.283:148-160 '64.

(MIRA 18:4)